

CLAIMS:

- 1 1. A method for applying one or more policy constraints in an application program, the
2 method comprising the computer-implemented step of redirecting a request to invoke
3 a routine contained in the application program to a policy broker without modifying
4 program code contained in the application program that invokes the routine, wherein
5 the processing of the request to invoke the routine by the policy broker causes the one
6 or more policy constraints to be applied to invocation of the routine.
- 1 2. The method as recited in Claim 1, wherein the redirecting of the request to the policy
2 broker is performed by invoking a routine managed by the policy broker.
- 1 3. The method as recited in Claim 1, wherein the redirecting of the request to the policy
2 broker is achieved by substituting original code contained in the routine with
3 replacement code that invokes a routine managed by the policy broker.
- 1 4. The method as recited in Claim 3, wherein the replacement code includes only code
2 that invokes a routine managed by the policy broker.
- 1 5. The method as recited in Claim 3, wherein the original code is original source code
2 and the replacement code is replacement source code.
- 1 6. The method as recited in Claim 3, wherein the original code is original object code
2 and the replacement code is replacement object code.
- 1 7. The method as recited in Claim 1, wherein the one or more policy constraints include
2 one or more security constraints.
- 1 8. A computer-readable medium carrying one or more sequences of one or more
2 instructions for applying one or more policy constraints in an application program,

3 the one or more sequences of one or more instructions including instructions which,
4 when executed by one or more processors, cause the one or more processors to
5 perform the step of redirecting a request to invoke a routine contained in the
6 application program to a policy broker without modifying program code contained in
7 the application program that invokes the routine, wherein the processing of the
8 request to invoke the routine by the policy broker causes the one or more policy
9 constraints to be applied to invocation of the routine.

- 1 9. The computer-readable medium as recited in Claim 8, further comprising one or more
2 sequences of additional instructions which, when executed by the one or more
3 processors, cause the one or more processors to redirect the request to the policy
4 broker by invoking a routine managed by the policy broker.
- 1 10. The computer-readable medium as recited in Claim 8, further comprising one or more
2 sequences of additional instructions which, when executed by the one or more
3 processors, cause the one or more processors to redirect the request to the policy
4 broker by substituting original code contained in the routine with replacement code
5 that invokes a routine managed by the policy broker.
- 1 11. The computer-readable medium as recited in Claim 10, wherein the replacement code
2 includes only code that invokes a routine managed by the policy broker.
- 1 12. The computer-readable medium as recited in Claim 10, wherein the original code is
2 original source code and the replacement code is replacement source code.
- 1 13. The computer-readable medium as recited in Claim 10, wherein the original code is
2 original object code and the replacement code is replacement object code.

- 1 14. The computer-readable medium as recited in Claim 12, wherein the one or more
2 policy constraints include one or more security constraints.
- 1 15. A method for implementing policy constraints in an application program, the method
2 comprising the computer-implemented steps of:
3 identifying a routine in the application program for which one or more policy
4 constraints are to be applied, wherein the routine is invoked by program code
5 contained in the application program; and
6 without modifying the program code, substituting replacement code for original code
7 contained in the identified routine, wherein execution of the replacement code
8 by one or more processors causes the one or more policy constraints to be
9 applied.
- 1 16. The method as recited in Claim 15, wherein the substitution of the replacement code
2 for the original code is performed without changing any calls to the routine that are
3 contained in the application program.
- 1 17. The method as recited in Claim 15, wherein the replacement code contains the
2 original code.
- 1 18. The method as recited in Claim 15, wherein the original code is original source code
2 and the replacement code is replacement source code.
- 1 19. The method as recited in Claim 15, wherein the original code is original object code
2 and the replacement code is replacement object code.
- 1 20. The method as recited in Claim 15, wherein the one or more policy constraints
2 include one or more security constraints.

- 1 21. A computer-readable medium carrying one or more sequences of one or more
2 instructions for implementing policy constraints in an application program, the one or
3 more sequences of one or more instructions including instructions which, when
4 executed by one or more processors, cause the one or more processors to perform the
5 steps of:
6 identifying a routine in the application program for which one or more policy
7 constraints are to be applied, wherein the routine is invoked by program code
8 contained in the application program; and
9 without modifying the program code, substituting replacement code for original code
10 contained in the identified routine, wherein execution of the replacement code
11 by one or more processors causes the one or more policy constraints to be
12 applied.
- 1 22. The computer-readable medium as recited in Claim 21, wherein the substitution of
2 the replacement code for the original code is performed without changing any calls to
3 the routine that are contained in the application program.
- 1 23. The computer-readable medium as recited in Claim 21, wherein the replacement code
2 contains the original code.
- 1 24. The computer-readable medium as recited in Claim 21, wherein the original code is
2 original source code and the replacement code is replacement source code.
- 1 25. The computer-readable medium as recited in Claim 21, wherein the original code is
2 original object code and the replacement code is replacement object code.
- 1 26. The computer-readable medium as recited in Claim 21, wherein the one or more
2 policy constraints include one or more security constraints.

- 1 27. An apparatus for implementing one or more policy constraints in an application
2 program, the apparatus comprising:
3 a memory; and
4 a code substitution mechanism communicatively coupled to the memory and being
5 configured to, for a routine in an application program invoked by program
6 code in the application program, substituting, without modifying the program
7 code, original code contained in the identified routine with replacement code,
8 wherein execution of the replacement code by one or more processors causes
9 the one or more policy constraints to be applied.
- 1 28. The apparatus as recited in Claim 27, wherein the code substitution mechanism is
2 further configured to perform the code substitution without changing any calls to the
3 routine that are contained in the application program.
- 1 29. The apparatus as recited in Claim 27, wherein the replacement code contains the
2 original code.
- 1 30. The apparatus as recited in Claim 27, wherein the original code is original source
2 code and the replacement code is replacement source code.
- 1 31. The apparatus as recited in Claim 27, wherein the original code is original object code
2 and the replacement code is replacement object code.
- 1 32. The apparatus as recited in Claim 27, wherein the one or more policy constraints
2 include one or more security constraints.